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Cosmological models with homogeneous and isotropic spatial sections

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Abstract

© 2017, Pleiades Publishing, Ltd.The assumption that the universe is homogeneous and isotropic is the basis for the majority of modern cosmological models. We give an example of a metric all of whose spatial sections are spaces of constant curvature but the space–time is nevertheless not homogeneous and isotropic as a whole. We give an equivalent definition of a homogeneous and isotropic universe in terms of embedded manifolds.

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Keywords

cosmology, homogeneous isotropic universe

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